

CLAIMS

1. Support material coated on at least one side with a synthetic resin, containing a raw paper provided at least on the front side with a pigment coating, wherein the pigment coating contains at least about 5 % by weight of a pigment with a narrow grain distribution, whereby at least about 70 % of these pigment particles feature a size of less than about 1  $\mu\text{m}$  and at least 40 % by weight of these particles feature a grain size of 0.35 to 0.8  $\mu\text{m}$ .
2. Support material according to claim 1, wherein the pigment is a calcium carbonate.
3. Support material according to claim 1, wherein the coating contains a pigment mixture which contains at least about 30 % by weight kaolin.
4. Support material according to claim 1, wherein the application weight of the coating amounts to a maximum of about 20  $\text{g}/\text{m}^2$ .
5. Support material according to claim 1, wherein the raw paper is a slightly compressed paper with a density of less than about 1  $\text{g}/\text{cm}^3$ .
6. Support material coated on at least one side with synthetic resin, containing a raw paper provided on at least the front side with a pigment coating, wherein the pigment coating contains a structured calcium carbonate.

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7. Support material according to claim 6, wherein the calcium carbonate is a surface modified by an inorganic substance in platelet shape.
8. Support material according to claim 6, wherein the proportion of the pigment in the total amount of pigment amounts to at least about 5 % by weight.
9. Support material according to claim 7, wherein the proportion of the pigment in the total amount of pigment amounts to at least about 5 % by weight.
9. Support material according to claim 6, wherein the pigment coating contains a pigment mixture which contains at least about 30 % by weight of clay.
10. Support material according to claim 8, wherein the application weight of the coating amounts to a maximum of about 20 g/m<sup>2</sup>.
11. Process for the manufacture of a support material coated on at least one side with a synthetic resin, containing a raw paper provided at least on the front side with a pigment coating, wherein the coating containing at least one pigment is applied on the front side of a raw paper, and the pigment features a narrow grain size distribution, that the pigment coating contains at least about 5 % by weight of a pigment with a narrow grain distribution, whereby at least about 70 % of these pigment particles feature a size of less than about 1  $\mu\text{m}$ , and at least 40 % by weight of these particles feature a grain size of 0.35 and 0.8  $\mu\text{m}$ , and a resin is applied on the side of the raw paper coated with the pigment, by extrusion, at a speed of up to 600 m/min.

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12. Process according to claim 11, wherein the resin is extruded onto the pigment coating of the raw paper at a speed of 350 to 600 m/min.
13. Process according to claim 11, wherein the coating of the raw paper is applied in two stages in such a way that first a preliminary layer containing pigment is first applied with an application weight of up to about 20 g/m<sup>2</sup> onto the raw paper, and then a coating containing a pigment with a narrow grain size distribution is applied, in which about 50 % of the pigment particles feature a diameter of 0.7 µm.
14. Support material for an ink-jet recording sheet comprising a raw paper provided at least on the front side with a pigment coating, wherein the pigment coating contains at least about 5 % by weight of a pigment with a narrow grain distribution, whereby at least about 70 % of these pigment particles feature a size of less than about 1 µm and at least 40 % by weight of these particles feature a grain size of 0.35 to 0.8 µm.
15. Support material according to claim 14, wherein the pigment is a calcium carbonate.
16. Support material according to claim 14, wherein the coating contains a pigment mixture which contains at least about 30 % by weight kaolin.
17. Support material according to claim 14, wherein the application weight of the coating amounts to a maximum of about 20 g/m<sup>2</sup>.

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18. Support material according to claim 14, wherein the calcium carbonate is a structured calcium carbonate.
19. Support material according to claim 14, wherein the calcium carbonate is a surface modified by an inorganic substance in platelet shape.